



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,432	06/27/2003	Craig Murphy	IVBU-0125	7936

7590

03/14/2006

Michael D. Stein  
WOODCOCK WASHBURN LLP  
46th Floor  
One Liberty Place  
Philadelphia, PA 19103

EXAMINER

URICK, MATTHEW T

ART UNIT

PAPER NUMBER

2113

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/609,432

**Applicant(s)**

MURPHY ET AL.

**Examiner**

Matt Urick

**Art Unit**

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**NON-FINAL OFFICIAL ACTION**

***Status of the Claims***

Claims 1-3, 6-10, 12, and 17-27 are rejected under 35 USC 102

Claims 4, 5, 11, and 13-16 are rejected under 35 USC 103

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-10, 12, and 17-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Zetts (United States Patent No. 6,378,129 B1).

As per claim 1, Zetts discloses:

A method for data delivery comprising a first server computer connected to a first network, a second server computer connected to the first network, said first and second servers being interconnected via a second network, the method comprising:

Synchronizing parameters of the first and second server computers (column 4 lines 33-38);

receiving an asset request from a user via the first network (column 4 lines 43-47);

processing the asset request by the first and second server computers (column 4 lines 48-53),

Art Unit: 2113

determining the operational status of the first server computer, wherein:

if a failure is not detected, transmitting the asset by the first server via the first network (column 4 lines 54-56)

if a failure is detected, transmitting the asset by the second server via the first network (column 4 lines 54-56).

As per claim 2, Zetts discloses:

The method of claim 1, wherein the steps of detecting a failure and transmitting the asset by the second server computer via the first network are performed within one interval (column 12 lines 43-52).

As per claim 3, Zetts discloses:

The method of claim 2, wherein the interval is one video frame in duration

As per claim 6, Zetts discloses:

The method of claim 1, wherein a synchronization component initiates data synchronization (column 5 lines 1-7).

As per claim 7, Zetts discloses:

The method of claim 1, wherein the step of detecting a failure comprises monitoring a plurality of signals transmitted by the first server computer during one interval (column 4 lines 50-56: the signals are continuously monitored).

As per claim 8, Zetts discloses:

The method of claim 7, wherein the plurality of signals are transmitted at a frequency greater than  $1$  divided by the interval (column 11 lines 44-47).

As per claim 9, Zetts discloses:

The method of claim 7, Wherein the interval is one video frame in duration (column 12 lines 43-52).

As per claim 10, Zetts discloses:

The method of claim 7, wherein a failure is determined to have occurred when a predefined number of signals are not received (column 4 lines 39-43).

As per claim 12, Zetts discloses:

12. The method of claim 1, wherein the step of detecting a failure is performed by a component monitor (column 4 lines 50-56).

As per claim 17, Zetts discloses:

Art Unit: 2113

The method of claim 1, further comprising defining one or more failover states for a server computer (column 3 lines 26-32; column 4 lines 33-38, 54-56; column 8 lines 22-28).

As per claim 18, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Primary state (column 4 lines 33-38).

As per claim 19, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Primary\_offline state (column 4 lines 54-56).

As per claim 20, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Primary\_no secondary state (column 3 lines 26-32).

As per claim 21, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Failed state (column 4 lines 54-56).

As per claim 22, Zetts discloses:

Art Unit: 2113

The method of claim 17, wherein the failover states comprise a Secondary state (column 4 lines 54-56).

As per claim 23, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Secondary\_offline state (column 3 lines 26-32).

As per claim 24, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Secondary-synchronizing state (column 8 lines 22-28).

As per claim 25, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Secondary synchronized state (column 4 lines 33-38).

As per claim 26, Zetts discloses:

The method of claim 17, wherein the failover states comprise a Secondary no-primary state (column 4 lines 54-56).

As per claim 27, Zetts discloses:

Art Unit: 2113

A method for data delivery comprising a first server operating on a first computer, a second server operating on the first computer, said first and second servers connected to a first network, the method comprising:

synchronizing parameters of the first and second servers (column 4 lines 33-38);  
receiving an asset request from a user via the first network (column 7 lines 18-27);

processing the asset request by the first and second server (column 4 lines 48-53),

determining the operational status of the first server, wherein  
if a failure is not detected, transmitting the asset by the first server via the first network (column 4 lines 54-56),

if a failure is detected, transmitting the asset by the second server via the first network (column 4 lines 54-56).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Art Unit: 2113

Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts (United States Patent No. 6,378,129 B1) in view of Taylor (United States Patent No. 6,823,349).

As per claim 5, Zetts fails to disclose:

The method of claim 1, wherein the first server computer initiates data synchronization.

Taylor discloses a system in which an automatic restoral logic is stored on the primary computer (column 8 lines 26-31) and initiates the synchronization process by checking the secondary memory for discrepancies (column 20 lines 11-21). Taylor discloses that his synchronization system prevents excessive updating time, which can be a major bottleneck for synchronous storage systems (column 2 lines 50-58. Zetts system also requires a fast synchronization process (column 2 line 51 - column 3 line 3). Using Taylor's invention would prevent the re-synchronization process from taking too long and causing video feed problems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the re-synchronization process of Taylor into the video server system of Zetts, creating a more efficient re-sync process.

As per claim 13, Zetts fails to disclose:

The method of claim 1, wherein the step of detecting a failure is performed by the first server computer.

Taylor discloses a system in which an automatic backup/restoral logic is stored on the primary computer (column 8 lines 26-31) and detects failure of a secondary storage or link to secondary storage (column 19 lines 35-45). The system stores the files to be written in a log so they can be written when the secondary storage is brought back online (instead of re-writing the entire primary storage). Taylor discloses that this system prevents excessive updating time, which can be a major bottleneck for synchronous storage systems (column 2 lines 50-58. Zetts system also requires a fast synchronization process (column 2 line 51 - column 3 line 3). Using Taylor's invention would prevent the re-synchronization process from taking too long and causing video feed problems. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the re-synchronization process of Taylor into the video server system of Zetts, creating a more efficient re-sync process.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts (United States Patent No. 6,378,129 B1) in view of Young (United States Patent No. 6,988,166).

Zetts fails to disclose:

The method of claim 1, wherein the second server computer initiates data synchronization.

Young discloses a RAID 1 (mirroring) system containing multiple hard disks where the second (mirror device) "snoops" the I/O bus for read/write operations (column 1 lines 5-12). The mirror device initiates a read/write operation without receiving a

Art Unit: 2113

command from the primary device (column 2 lines 45-51). Zetts' system also requires an accurate synchronization step (column 3 lines 4-9). Using the "snooping" operation of Young would provide accurate disk mirroring since the second memory would always receive the same commands as the primary. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the "snooping" process of Young into the video server system of Zetts, as a means for disk mirroring.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts (United States Patent No. 6,378,129 B1) in view of Lin (United States Patent No. 6,922,793).

Zetts fails to disclose:

The method of claim 1, wherein the step of detecting a failure is performed by the second server computer

Lin discloses a system in which a two network agents synchronize their configuration information (column 4 lines 38-42). The primary agent sends heartbeat signals to the secondary and the secondary detects if these signals fail to arrive (column 5 lines 38-43). This system provides redundant management of dual network devices, preventing a single point of failure. Zetts also discloses that he wishes to maintain redundancy in a low tolerance environment (column 1 lines 19-28). Using the heartbeat system of Lin would notify the secondary computer if the first had been disabled. This

Art Unit: 2113

would prevent the secondary server from dedicating excessive bandwidth to synchronizing if the primary server was down anyway (bandwidth devoted to synchronizing can slow the system as stated in Zetts column 7 lines 28-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the re-synchronization process of Taylor into the video server system of Zetts, creating a more efficient re-sync process.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zetts (United States Patent No. 6,378,129 B1) in view of Wikipedia.

As per claim 14, Zetts discloses:

The method of claim 1, wherein the step of detecting a failure is performed by a kernel running on the first server computer.

Wikipedia discloses that a kernel is often used to manage and access hardware (§ 1-2). Most modern operating systems use a kernel ("Introduction" § 1 last 3 lines). Since Zetts' system utilizes multiple modern computing systems contending for access to memory, network devices, and other hardware, it would be obvious to use a kernel to detect hardware failure. The "second computer" of Zetts' invention actually acts as a kernel since it regulates access to the archive device hardware (column 5 lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a kernel into the video server system of Zetts, as a means of hardware management and fault detection.

As per claim 15, Zetts discloses:

The method of claim 14, wherein one or more applications critical to the operation of the first server computer register with the kernel.

Wikipedia discloses that a kernel is often used to manage and access hardware. It provides software access to hardware components by definition (§ 1-2). Most modern operating systems use a kernel ("Introduction" § 1 last 3 lines). Since Zetts' system utilizes multiple modern computing systems contending for access to memory, network devices, and other hardware, it would be obvious to use a kernel to detect hardware failure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a kernel into the video server system of Zetts, as a means of hardware management and fault detection.

As per claim 16, Zetts discloses:

The method of claim 14, wherein a failure is determined to have occurred when the kernel recognizes one or more critical application failures.

Wikipedia discloses that a kernel is often used to manage and access hardware (§ 1-2). Most modern operating systems use a kernel ("Introduction" § 1 last 3 lines). Since Zetts' system utilizes multiple modern computing systems contending for access to memory, network devices, and other hardware, it would be obvious to use a kernel to detect hardware failure. The "second computer" of Zetts' invention actually acts as a kernel since it regulates access to the archive device hardware (column 5 lines 1-7), and is capable of detecting software failures (column 10 lines 23-26). Therefore, it

Art Unit: 2113

would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a kernel into the video server system of Zetts, as a means of hardware management and fault detection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Urick whose telephone number is (571) 272-0805. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/609,432

Page 14

Art Unit: 2113

MAZ

\*\*\*

Bryce P. Bonzo

**BRYCE P. BONZO**  
**PRIMARY EXAMINER**